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RECTAL STRICTURE OF PUERPERAL ORIGIN, RELIEVED BY LAPAROTOMY.

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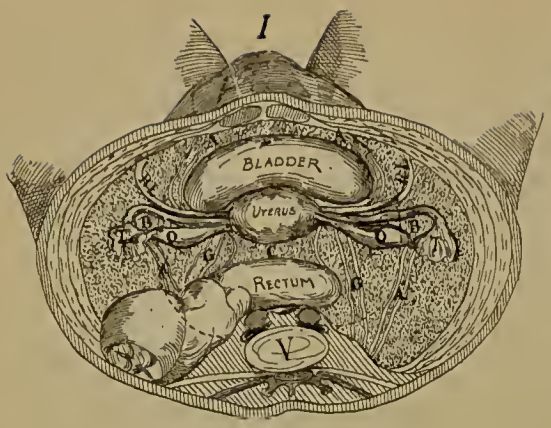
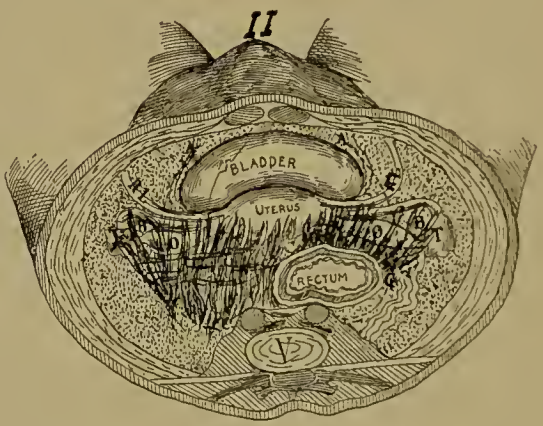


No. I.—Transverse Section of the Body, showing normal position of fundus uteri: A, hypogastric artery; A^1, spermatic vessel and nerve; B, broad ligament; C, sacro-uterine ligament; G, ureter; O, ovary; T, tube; RL, round ligament; V, last lumbar vertebra; dotted line indicates the true pelvis. (Modified from Savage.)

No. II (hypothetical).—Transverse Section of the Body, showing the site of the inflammatory exudate. References as in No. 1.



No. III.—Transverse Section of the Body, showing the relations of the pelvic viscera in the case of Rectal Stricture of Mrs. M. RL, round ligament; C, cicatricial mass including the left tube and ovary; O, right ovary, adherent to rectum, covered by new connective tissue; N, site of operation.

DIAGRAMS ILLUSTRATING A CASE OF RECTAL STRICTURE.

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It is with considerable trepidation that I offer to this society, the elite of the medical profession of this great state of Ohio, in the words of Joseph Cook, "before whom I ought to stand dumb," a new classification of rectal stricture. The case I have to report today has been of especial interest to me, and, on looking up the literature, appears to be unique. The consideration of the subject forces me to divide rectal stricture into *true* and *false*.

In a *true stricture* the pathological narrowing is situated in one or more of the structures of the rectum.

By a *false stricture* of the rectum will be understood a stricture wherein the pathological condition is situated in the perirectal tissues, and not in the structures of the rectum. This must not be confounded with obstruction of the rectum, caused by a tumor or misplaced organ.

With true stricture and with obstruction of the rectum this paper does not deal; but it is my wish to show that false stricture not only exists, but may be better treated than by the methods recommended in the text-books. The case giving rise to this research is as follows.

Synopsis. Symptoms of rectal stricture following confinement. Laparotomy. Recovery, with a complete cure of the stricture.

History. Mrs. M., aged thirty-six years, a large, well-built

* Read at the meeting of the Ohio State Medical Society, June 28, 1893.

woman, has always enjoyed good health until her last confinement. She first menstruated at seventeen years; her periods have been regular in time and quantity, and accomplished without difficulty. She has given birth to four children; one ten years since, one six, the third three years ago, and one in April, 1892. All the labors were easy and convalescence normal except the last. The first child died at the age of seventeen months of diphtheria; the last one lived but twelve days; the other two are healthy. No trace of syphilis or gonorrhoea in husband or wife. On the second day after confinement she complained of severe pain in the lower part of the abdomen, and on the eighth day a rectal tenesmus supervened, there being frequent passages of mucous streaked with blood. This continued some two months: gradually the acute pain and bloody discharge subsided, but she did not regain her former good health.

Her doctor told her that she had "grippe of the bowels." No vaginal examination was made. In July she consulted one of our leading gynaecologists, who put her to bed, gave her hot douches, and said to her, "You will have to stay in bed until the snow flies." For two and a half months she had no symptoms directly referable to the rectum, but after the latter part of August the difficulty she experienced in getting her bowels to move gradually increased in severity.

On the twenty-fifth of last October my father first saw the patient; at this time she was having a chill every day or every other day, with a temperature from 100° to 101° F. The next week I saw her, she was then in a deplorable condition; her entire trouble was referred by herself to the difficulty in getting a passage, which she dreaded on account of the pain, she described as "something terrible," forcing her to bear down as if she were "going to have a baby." A movement was only secured by the repeated administration of large doses of powerful cathartic, and was accompanied by a distressing, burning sensation in the rectum, which could not be relieved. The anus, she said, would at these times "draw up toward the inside," while the passage was "very small like a baby's." Her other symptoms were accompanied by a persistent

anorexia and daily vomiting, that threatened a speedy termination unless relief should be obtained.

A rectal examination revealed, at three and a half inches, a firm annular stricture, so small and resisting that the examining finger could not be made to engage in it. On making a vaginal examination the cervix was free, that is, as free as is possible with a fixed fundus. The fundus was retroflected, drawn to the left, and firmly fixed to the sacrum. Passing from the fundus laterally could be felt on either side a firm band, not sensitive to pressure, shorter and thicker on the left than on the right side. These bands occupied the site of the superior border of the broad ligament, passing off from either side of the uterus at its fundus, but did not extend throughout the width of the broad ligaments down to the cervix. Ovaries and tubes not to be differentiated.

November fifteenth, assisted by the house staff of Charity Hospital, in the presence of Drs. W. J. Scott, Weber, and Lucas, I opened the abdomen by a four inch incision, with the expectation of at least partially relieving the rectum by freeing the uterus, lifting it up, and doing a ventro-fixation. The uterus was retroflected, drawn to the left, and fixed to the sacrum; so firm were the adhesions, and to such an extent had the cicatricial contraction taken place, that the peritoneum of the fundus had a white, glistening, bloodless appearance. The left tube and ovary were not found, but their site was occupied by a mass of new connective tissue. The rectum skirted along the promontory of the sacrum just above the fundus of the uterus, and dipped down into the pelvis to the right of that organ, instead of the left where it is usually found. Commencing above to free the rectum, the vermiform appendix was found adherent to its anterior surface; this was freed and being normal was put over into its proper place. The tube and ovary, containing a small cyst which ruptured during the manipulations, were next lifted from the rectum. Very little ovarian tissue was left, the most of it being substituted by cicatricial tissue. The right broad, and the round ligaments were found to be much shortened, these, reinforced by the inflammatory new connective tissue between the rectum and broad ligament, formed a firm stricture of

the rectum. The broad ligament including the round ligament was cut between forceps well down into "Douglas's pouch," and the anterior and posterior layer of peritoneum stitched together on either side of the cut. After stopping the oozing, and flushing the abdomen, the external incision was closed with silk worm gut. A rectal examination showed that the stricture had been immediately relieved.

I have prepared a series of charts to illustrate the condition at the time of operation. *

No. I, after Savage, I have modified to represent a transverse section of the body, showing the normal position of the fundus uteri, situated at about the center of the pelvic cavity, with the broad ligament and the structures contained therein; the ovary, tube, and round ligament passing out laterally to the pelvic walls.

No. II represents a transverse section of the body, showing the site of the inflammatory exudate and adhesions. This chart is largely hypothetical; as there was no vaginal examination for several months after the confinement, there is no way of knowing how much of an exudate there was during the earlier stages.

No. III represents a transverse section of the body, showing the relation of the pelvic viscera, in the case under discussion, at the time of operation. The rectum passes down into the pelvis on the right side, the uterus is drawn to the left, and fixed. To the left of the uterus is the short band of connective tissue enclosing the remains of the ovary, tube, and broad ligament. To the right of the uterus the broad ligament, passing from the fixed uterus on the one hand to the pelvic wall on the other, shortened and reinforced by the inflammatory new connective tissue, forms a firm band, pressing down upon the rectum, and preventing that organ from performing its natural functions. N. represents the site of the operation.

Convalescence was uneventful. One month after the operation I have in my notes the following: "Feels perfectly well. Cannot get enough to eat, but suffers no discomfort from eating.

* Frontispiece shows diagrams reduced, by photographic process, from the original charts.

As soon as her head touches the pillow she is asleep ; first restful sleep since last April. Bowels move every day and has taken cathartic but once since coming home." To-day, six months after the operation, she says her health is better than ever before. Surely not the ordinary result of an operation for stricture of the rectum by the old methods !

The literature of the subject contains numerous cases of obstruction of the intestinal tract by bands of various kinds; some of them extending to the true pelvis, or even located in it; but the following three cases only may be fairly called false stricture of the rectum, although not so reported.

In 1854-'55* Mr. T. J. Ashton exhibited to the London Pathological Society a specimen showing "Stricture of the rectum, from a deposit of fibrous tissue external to its coats."

"F. Aet. 54. Admitted to hospital with a history of disease of the rectum of twenty years standing, examination showed a contraction of the bowel to exist at three inches from the anus, surrounded by a dense mass of morbid structure. On post mortem examination, the intestines were found greatly distended. No peritoneal inflammation existed. The rectum was contracted at the part already mentioned, and was surrounded by a large mass, having the appearance of fat, and very dense; but by the aid of the microscope, as well as subjecting the specimen to the action of ether, it was found to be composed of fibrous tissue alone."

Jan. 11, 1893,† Dr. Biggs exhibited to the New York Pathological Society a specimen of which he says: "It was removed from a woman, thirty-five years of age. There were extensive adhesions from the upper border of the uterus directly backward to the rectum. It was interesting to note that the origin of the trouble was tubal. A firm band of fibrous tissue, nearly half an inch thick, surrounded the middle portion of the rectum, causing so much obstruction that it was with difficulty that the little finger could be forced through the opening. Above this point there was very marked dilatation of the gut, and in the sigmoid

*Transactions of the Pathological Society of London. 1854-'55.

†New York Medical Record, Feb. 4, 1893.

flexure and ascending colon there was very extensive diphtheritic inflammation."

Dr. Edwards* also reports a case found at post mortem, in which "The cause of all the trouble was a cartilaginous band, about one and a half or two inches wide, which had gradually occluded the gut completely from seven and a half to nine inches above the anus."

It is probable that most false strictures are due to an inflammatory process starting without the rectum. Dr. Biggs' case was apparently of that character, and my own was undoubtedly the result of such an inflammation.

That the latter was of puerperal origin there can be no doubt, as the history is clear on this point. None of the older authors mention the puerperal condition as an etiological factor of stricture of the rectum. Whitehead, even as late as 1888, in a lengthy address on stricture of the rectum says: "I have no knowledge whatever of child-bearing as a cause of rectal stricture." The modern authors are, however, beginning to recognize it as an etiological factor. Wyeth's and Moullin's Surgeries contain the simple assertion that the "accidents of parturition not infrequently tend to stricture."

The differential diagnosis between true and false stricture is most difficult, since there is no pathognomonic sign or symptom. The clinical history of both are alike; a rectal examination reveals apparently the same condition. But if on vaginal examination, or otherwise, a pelvic band can be felt, especially if the uterus is fixed posteriorly, the stricture may be suspected as a false stricture. May it not be that quite a proportion of those found in women are false strictures?

Let us review for a moment the methods of treatment advocated for stricture of the rectum. They are, combined with constitutional treatment, the bougie, linear proctotomy, and colotomy.

The use of the bougie is not without danger, and even after the stricture has been fully dilated, the instrument must be passed at intervals to prevent its recontraction. Surely not a cure!

* New York Medical Record, April 21, 1888.

Of linear proctotomy "The American Text Book of Surgery" says: "It cannot be practised when the stricture is high up or of great extent; here we must perform colotomy to save the patient's life." The four cases forming the basis of this paper were from three to seven and a half inches from the anus, and it is not improbable that most false strictures are high up, situated above the floor of "Douglas's pouch." Any operation through the rectum must not only cut through sound tissues, exposing them to the dangers of infection, but, if the operation is thorough enough to divide the constricting band, must also open the peritoneal cavity, which is the danger to be feared in linear proctotomy.

Colotomy is rightly a last resort; and, if a case judged to be a false stricture proves, on opening the abdomen, not to be directly amenable to surgical treatment, a colotomy can be performed, and the median abdominal incision closed, without materially adding to the dangers of the colotomy.

I have endeavored to show that there are cases of stricture where the pathological condition is situated outside of the rectum. These I have denominated false stricture in contradistinction to true stricture.

False stricture is usually the result of an inflammation starting without the rectum.

The puerperal condition is an important etiological factor.

Presents the same clinical picture as the true stricture.

Situated above the floor of "Douglas's pouch."

Theoretically false stricture can be best treated by laparotomy.